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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/534,510	10/31/2005	Michael Haft	05281.0015	5107
22852 7590 06/26/2007 FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP 901 NEW YORK AVENUE, NW WASHINGTON, DC 20001-4413			EXAMINER YANG, CHIN JU	
			ART UNIT 2169	PAPER NUMBER
			MAIL DATE 06/26/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/534,510	Applicant(s) HAFT ET AL.	
	Examiner Chin-ju Yang	Art Unit 2169	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 October 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121 and 372:

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

Group I, claim(s) 1-8, 10-12, drawn to access and computer-aided preparation of a database stored on a remote server, classified in class 707, subclass 10.

Group II, claim(s) 9, drawn to computer-aided formation of a statistical model of a database, classified in class 707, subclass 102.

2. A written election/restriction as requested was made to the Applicant's representative on 05/01/07. A formal response was received on 05/31/07, where Group I was elected for prosecution. This selection is presumed to be made without traverse as the Applicant's representative did not present any objection to the restriction in the response.

3. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Priority

4. Applicant's claim for the benefit of a prior-filed application under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c) is acknowledged. As required by M.P.E.P. 201.14(c), acknowledgement is made of applicant's claim for priority based on application filed on November 12, 2002 (Germany 102 52 445.9).
5. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

6. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.
7. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.

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(2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.

(g) BRIEF SUMMARY OF THE INVENTION.

(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).

(i) DETAILED DESCRIPTION OF THE INVENTION.

(j) CLAIM OR CLAIMS (commencing on a separate sheet).

(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

(l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Drawings

8. The drawings are objected to because they fail to show necessary textual labels of features of symbols in Fig. 1-5, as described in the specification. For example, placing a label, "telephone terminal", with element 101 of Fig. 1, would give the viewer the necessary detail to fully understand this element with a glance. A ***descriptive*** textual label for ***each numbered element*** in these figures would be needed to provide a better understanding of these figures without substantial analysis of the detailed specification. Any structural detail that is of sufficient importance to be described should be shown in the drawing. Optionally, applicant may wish to include a table next to the present figure to fulfill this requirement. See 37 CFR 1.82. 37 CFR 1.84 (n)(o) is recited below:

(n) Symbols. Graphical drawing symbols may be used for conventional elements when appropriate. The elements for which such symbols and labeled representations are used must be adequately identified in the specification.

Known devices should be illustrated by symbols which have a universally recognized conventional meaning and are generally accepted in the art. Other symbols which are not universally recognized may be used, subject to approval by the Office, if they are not likely to be confused with existing conventional symbols, and if they are readily identifiable.

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(o) Legends. Suitable descriptive legends may be used subject to approval by the Office, or may be required by the examiner where necessary for understanding of the drawing. They should contain as few words as possible.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

9. Claims 2, 6-7 are objected to because of the following informalities:
 - a. In claim 2, line 4, the examiner suggests to replace "which model" with – the overall statistical model--.
 - b. In claims 6-7, they are objected to under 37 CFR 1.75(c) as being in

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improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, claims 6-7 are not being further treated on the merits. For the purpose of examination, the examiner has presumed that claims 6-7 are depending on claim 1.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claims 1-8, 10-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Bradley et al. (US 6,449,612).

As per claim 1, Bradley et al. disclose a method for the computer-aided provision of database information of a first database,

in which, for the first database, a first statistical model is formed which represents the statistical relationships between the data elements contained in the first database as ***[the invention computes a candidate cluster set for characterizing a database of***

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data; col 2, line 66 to col 3, line 1],

in which the first statistical model is stored in a server computer as
***[characterizing data contained in a database 10 (FIG. 2) having many records
stored on multiple, possibly distributed storage devices; col 4, lines 18-20],***

in which the first statistical model is transmitted from the server computer to a
client computer via a communications network as ***[In a client/server implementation
an application program acts as the client and the data mining engine is the
server. The application is the recipient of an output model; col 4, lines 28-31],***

in which the received, first statistical model is further processed by the client
computer as ***[The application is the recipient of an output model and makes use of
that model in one of a number of possible ways such as fraud detection etc; col 4,
lines 30-32].***

As per claim 2, Bradley et al. disclose an overall statistical model is formed using
the first statistical model and data elements of a second database stored in the client
computer, which model has at least some of the statistical information contained in the
first statistical model and some of the statistical information contained in the second
database as ***[a holdout data set maintained as individual data records such as
those found in FIG. 6C is used to evaluate the model for the sufficiency of the
cluster number K; col 7, lines 14-16].***

As per claim 3, Bradley et al. disclose in which, for a second database, a second

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statistical model is formed which represents the statistical relationships between the data elements contained in the second database as ***[characterizing data contained in a database 10 (FIG. 2) having many records stored on multiple, possibly distributed storage devices; col 4, lines 18-21],***

in which the second statistical model is transmitted to the client computer via the communications network as ***[In a client/server implementation an application program acts as the client and the data mining engine is the server. The application is the recipient of an output model; col 4, lines 28-31],***

in which an overall statistical model, which has at least some of the statistical information contained in the first statistical model and some of the statistical information contained in the second statistical model, is formed by the client computer using the first statistical model and the second statistical model as ***[choosing a best fit of the data portion to determine a selected clustering model from the candidate cluster set; col 25, lines 20-21].***

As per claim 4, Bradley et al. disclose in which the second statistical model is stored in a second server computer as ***[computer 20 may operate in a networked environment using logical connections to one or more remote computers, such as a remote computer 49. The remote computer 49 may be another personal computer, a server; col 19, lines 6-9],***

in which the second statistical model is transmitted from the second server computer to the client computer via a communication network as ***[In a client/server***

implementation an application program acts as the client and the data mining engine is the server. The application is the recipient of an output model; col 4, lines 28-31].

As per claim 5, Bradley et al. disclose in which at least one of the statistical models is formed by means of a scalable method with which the degree of compression of the statistical model compared to the data elements contained in the respective database can be set as ***[When which of the data records can safely be compressed the data mining engine 12 sets up a confidence interval; col 9, lines 14-16].***

As per claim 6, Bradley et al. disclose in which at least one of the statistical models is formed by means of an EM learning method or by means of a gradient-based learning method as ***[updating the cluster model is performed using an expectation maximization clustering process; col 26, lines 27-29].***

As per claim 7, Bradley et al. disclose the first database and/or the second database has/have data elements which describe at least one technical system as ***[sufficient statistics representing data from the database used in creating a current clustering model; col 28, lines 50-52].***

As per claim 8, Bradley et al. disclose in which the data elements describing the at least one technical system represent values which are measured at least partially on

the technical system and which describe the operating behavior of the technical system as ***[the sufficient statistics are then used to update the candidate cluster model, said updated candidate clustering model then compared with the current clustering model to choose the best fit; col 28, lines 37-40]***.

As per claim 10, Bradley et al. disclose a computer arrangement for the computer-aided provision of database information of a first database,

having a server computer in which a first statistical model which is formed for a first database is stored, wherein the first statistical model represents the statistical relationships of the data elements contained in the first database as ***[data from a database 10 has been read into a memory of a computer and used to form a clustering model; col 13, lines 54-55]***,

having a client computer which is coupled to the server computer by means of a communications network and which is configured for further processing the first statistical model which is transmitted from the server computer to the client computer via the communications network as ***[In a client/server implementation an application program acts as the client and the data mining engine is the server. The application is the recipient of an output model; col 4, lines 28-31]***.

As per claim 11, Bradley et al. disclose in which a second database having data elements is stored in the client computer as ***[an additional storage medium for storing data records for access by a computer processing unit; col 26, lines 53-***

54],

wherein the client computer has a unit for forming an overall statistical model using the first statistical model and the data elements of the second database, wherein the overall statistical model has at least some of the statistical information contained in the first statistical model and some of the statistical information contained in the second database as ***[a processor unit 21 of the computer system 20 performs an extended clustering analysis of a portion of the data brought into memory; col 7, lines 1-3].***

As per claim 12, Bradley et al. disclose having a second server computer in which a second statistical model which is formed for a second database is stored, wherein the second statistical model represents the statistical relationships of the data elements contained in the second database as ***[data from a database 10 has been read into a memory of a computer and used to form a clustering model; col 13, lines 54-55],***

wherein the client computer is coupled to the second server computer by means of the communications network as ***[the computer 20 typically includes a modem 54 or other means for establishing communications over the wide area network 52; col 19, lines 22-24],***

wherein the client computer has a unit for forming an overall statistical model using the first statistical model and the second statistical model, wherein the overall statistical model has at least some of the statistical information contained in the first statistical model and some of the statistical information contained in the second

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statistical model as ***[choosing a best fit of the data portion to determine a selected clustering model from the candidate cluster set; col 25, lines 20-21]***.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant is required under 37 C.F.R. § 1.111 (c) to consider these references fully when responding to this action. The documents cited therein teach generating statistical models based on analysis of the database records.

13. The examiner requests, in response to this Office action, support to be shown for language added to any original claims on amendment and any new claims. That is, indicate support for newly added claim language by specifically pointing to page(s) and line no(s) in the specification and/or drawing figure(s). This will assist the examiner in prosecuting the application.

When responding to this office action, Applicant is advised to clearly point out the patentable novelty which he or she thinks the claims present, in view of the state of the art disclosed by the references cited or the objections made. He or she must also show how the amendments avoid such references or objections See 37 CFR 1.111(c).

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chin-ju Yang whose telephone number is 571-272-

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9783. The examiner can normally be reached on Monday Through Friday, 8:30AM to 6:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pierre Vital can be reached on 571-272-4215. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

June 21, 2007

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